CONTENTS OF VOLUME 53

Ader, Robert, Tatum, Ronald, and Beels, C. Christian. Social Factors Affecting Emotionality and Resistance to Disease in Animals: I. Age of Separation from the Mother and Susceptibility to Gastric Ulcers in the Rat 446

Ader, Robert, Beels, C. Christian, and Tatum, Ronald. Social Factors Affecting Emotionality and Resistance to Disease in Animals: II. Susceptibility to Gastric Ulceration as a Function of Interruptions in Social Interactions and the Time at Which They Occur 455

Akert, K. See Warren, J. M.

Anderson, Norman H. See Coons, Edgar E.

Angermeier, Wilhelm F. Some Basic Aspects of Social Reinforcements in Albino Rats 364

Baker, Howard D. See Smith, James C.

Ball, G. G., and Warren, J. M. Maturation of *Umweg* Learning in White Leghorn Chicks 273

Ball, G. G. See Warren, J. M.

Bare, John K., and Cicala, George. Deprivation and Time of Testing as Determinants of Food Intake 151

Baron, Alan, and Kish, George B. Early Social Isolation as a Determinant of Aggregative Behavior in the Domestic Chicken 459

Battig, K., Rosvold, H. E., and Mishkin, M. Comparison of the Effects of Frontal and Caudate Lesions on Delayed Response and Alternation in Monkeys 400

Beels, C. Christian. See Ader, Robert.

Bennett, Edward L. See Krech, David.

Bessant, D. E. See Dodwell, P. C.

Bindra, Dalbir, and Claus, Hans-Jörg. A Test of the Novelty-Reactions Interpretation of the Effects of Stimulus Change 270

Bitterman, M. E. See Datta, Lois-Ellin G.

Bitterman, M. E. See Longo, Nicholas.

Bliss, William D. The Role of Perceptual Cues in the Delayed Reaction 176

Bolles, Robert C. Grooming Behavior in the Rat 306

Bower, Gordon H., and Miller, Neal E. Effect of Amount of Reward on Strength of Approach in an Approach-Avoidance Conflict 59

Brady, Joseph V., and Conrad, Donald G. Some Effects of Limbic System Self-Stimulation upon Conditioned Emotional Behavior 128

Brookshire, K. H. See Warren, J. M.

Brown, W. Lynn. See McDowell, A. A.

Bureš, Jan, and Burešová, Olga. The Use of Leão's Spreading Depression in the Study of Interhemispheric Transfer of Memory Traces 558

Burešová, Olga. See Bureš, Jan.

Butter, Charles M., and Campbell, Byron A. Running Speed as a Function of Successive Reversals in Hunger Drive Level 52

Calvin, Allen D. See Igel, George J.

Campbell, Byron A. Effects of Water Deprivation on Random Activity 240

Campbell, Byron A. See Butter, Charles M.

Campbell, Byron A. See Teghtsoonian, Robert.

Candland, Douglas K., Faulds, Bruce, Thomas, Donald B., and Candland, Mary H. The Reinforcing Value of Gentling 55

Candland, Mary H. See Candland, Douglas K.

Capaldi, E. J., and Robinson, Donald E. Performance and Consummatory Behavior in the Runway and Maze as a Function of Cyclic Deprivation 159

Capaldi, E. J. See Young, Robert K.

Capeheart, Jack. See Hulička, Irene Mackintosh.

Carlson, Nils James. Primary and Secondary Reward in Traumatic Avoidance Learning 336

Cicala, George. See Bare, John K.

Claus, Hans-Jörg. See Bindra, Dalbir.

Cochran, Samuel W. See Wickens, Delos D.

Conrad, Donald G. See Brady, Joseph V.
Coons, Edgar E., Anderson, Norman H., and Myers, Arlo K. Disappearance of Avoidance Responding during Continued Training 290
Coons, Edgar E., and Miller, Neal E. Conflict Versus Consolidation of Memory Traces to Explain "Retrograde Amnesia" Produced by ECS 524
Coons, Edgar E. See Trapold, Milton A.
Covington, Martin. See Royce, Joseph R.
D'Amato, M. R., and Jagoda, H. Age, Sex, and Rearing Conditions as Variables in Simple Brightness Discrimination 261
D'Amato, M. R. See Jagoda, H.
Datta, Lois-Ellin G., Milstein, Sandra, and Bitterman, M. E. Habit Reversal in the Crab 275
Davis, John D. See Hughes, Dolores.
Deutsch, J. A., and Jones, A. D. Diluted Water: An Explanation of the Rat's Preference for Saline 122
Dodwell, P. C., and Bessant, D. E. Learning without Swimming in a Water Maze 422
Dyal, James A. Brightness and Spatial Discrimination Based on Perceived Incentive Magnitude 346
Dykman, Roscoe A. See Wilson, J. W. Dalton.
Edelberg, Robert. See Maulsby, Robert L.
Edwards, Barbara J. See Nealey, Stanley M.
Eisman, Eugene, Linton, Marigold, and Theios, John. The Relationship between Response Strength and One Parameter of the Hunger Drive 359
England, Samuel J. See Levine, Seymour.
Erickson, Marilyn T., and Lipsitt, Lewis P. Effects of Delayed Reward on Simultaneous and Successive Discrimination Learning in Children 256
Faulds, Bruce. See Candland, Douglas K.
Feldman, Robert S., and Liberson, Wladimir T. The Effect of Reserpine on Behavior Fixations in Rats 483
Feldman, Robert S., and Neet, Claude C. The Effect of Electroconvulsive Shock on Fixated Behavior in the Rat: IV. The Prevention of Fixations with ECS 532
Finger, Frank W., Reid, Lyne Starling, and Weasner, Marvin Harold. Activity Changes as a Function of Reinforcement under Low Drive 385
Finger, Frank W. See Weasner, Marvin Harold.
Fischer, Barbara E. See Michels, Kenneth M.
Forgays, Donald G. See Levin, Harry.
Friedman, Monroe P. See Furchgott, Ernest.
Furchgott, Ernest, and Friedman, Monroe P. The Effects of Hunger on Taste and Odor RLs 576
Ginsburg, Norman. Conditioned Vocalization in the Budgerigar 183
Glickman, Stephen E. Reinforcing Properties of Arousal 68
Glickstein, Mitchell, and Sperry, R. W. Intermanual Somesthetic Transfer in Split-Brain Rhesus Monkeys 322
Goldstein, Allan C. Starvation and Food-Related Behavior in a Poikilotherm, the Salamander, *Triturus Viridescens* 144
Gollender, M., Law, O. T., and Isaacson, R. L. Changes in the Circulating Eosinophil Level Associated with Learned Fear: Conditioned Eosinopenia 520
Goodrich, Kenneth P. Running Speed and Drinking Rate as Functions of Sucrose Concentration and Amount of Consummatory Activity 245
Grice, G. Robert. See Hughes, Dolores.
Grosser, George S., and Harrison, J. M. Behavioral Interaction between Stimulated Cortical Points 229
Guild, Robert E. Incentive Motivation in Satiated Rats 351
Hall, John F., Low, Lorraine, and Hanford, Peter. A Comparison of the Activity of Hungry, Thirsty, and Satiated Rats in the Dashiell Checkerboard Maze 155
Hall, Robert D., and Kling, J. W. Amount of Consummatory Activity and Performance in a Modified T Maze 165
Hanford, Peter. See Hall, John F.

HANLON, CAMILLE. Response Variability in Children as a Function of Age, Pretraining, and Incentive Conditions 267
HARLOW, HARRY F., HARLOW, MARGARET K., RUEPING, ROBERT R., AND MASON, WILLIAM A. Performance of Infant Rhesus Monkeys on Discrimination Learning, Delayed Response, and Discrimination Learning Set 113
HARLOW, MARGARET K. See HARLOW, HARRY F.
HARRISON, J. M. See GROSSER, GEORGE S.
HODOS, WILLIAM, AND VALENSTEIN, ELLIOT S. Motivational Variables Affecting the Rate of Behavior Maintained by Intracranial Stimulation 502
HOVORKA, E. J., SCHUMSKY, D. A., AND WORK, M. S. Electroconvulsive Thresholds as Related to Stimulus Parameters of Unidirectional ECS 412
HUGHES, DOLORES, DAVIS, JOHN D., AND GRICE, G. ROBERT. Goal Box and Alley Similarity as a Factor in Latent Extinction 612
HULIČKA, IRENE MACKINTOSH, CAPEHART, JACK, AND VINEY, WAYNE. The Effect of Stimulus Variation on Response Probability during Extinction 79
IGEL, GEORGE J., AND CALVIN, ALLEN D. The Development of Affectional Responses in Infant Dogs 302
ISAAC, WALTER. Arousal and Reaction Times in Cats 234
ISAACSON, R. L. See GOLLENDER, M.
JAGODA, H., AND D'AMATO, M. R. Response Repetition in a Free-Responding Situation 264
JAGODA, H. See D'AMATO, M. R.
JOHNSON, J. I., JR. See MICHELS, KENNETH M.
JOHNSON, RONALD C., AND ZARA, RONALD C. Relational Learning in Young Children 594
JONES, A. D. See DEUTSCH, J. A.
KAHN, MARVIN, AND STELLAR, ELIOT. Alcohol Preference in Normal and Anosmic Rats 571
KENDALL, STEPHEN B., AND THOMPSON, RICHARD F. Effect of Stimulus Similarity on Sensory Preconditioning within a Single Stimulus Dimension 439
KENDLER, HOWARD H. See KENDLER, TRACY S.
KENDLER, TRACY S., KENDLER, HOWARD H., AND WELLS, DORIS. Reversal and Nonreversal Shifts in Nursery School Children 83
KIM, CHUL. Nest Building, General Activity, and Salt Preference of Rats following Hippocampal Ablation 11
KIM, CHUL. Sexual Activity of Male Rats following Ablation of Hippocampus 553
KING, FREDERICK A. See MEYER, PATRICIA M.
KING, ROBERT L. Flexion and Respiratory Conditioning in the Hemihypothalamic Cat 217
KISH, GEORGE B. See BARON, ALAN.
KLING, J. W. See HALL, ROBERT D.
KRAFT, MARCIA S., OBRIST, WALTER D., AND PRIBRAM, KARL H. The Effect of Irritative Lesions of the Striate Cortex on Learning of Visual Discriminations in Monkeys 17
KRECH, DAVID, ROSENZWEIG, MARK R., AND BENNETT, EDWARD L. Effects of Environmental Complexity and Training on Brain Chemistry 509
KURTZ, KENNETH, AND PEARL, JACK. The Effects of Prior Fear Experiences on Acquired-Drive Learning 201
LATIES, VICTOR G. See WEISS, BERNARD.
LAW, O. T. See GOLLENDER, M.
LEVIN, HARRY, AND FORGAYS, DONALD G. Sensory Change as Immediate and Delayed Reinforcement for Maze Learning 194
LEVINE, SEYMOUR, AND ENGLAND, SAMUEL J. Temporal Factors in Avoidance Learning 282
LEVINE, SEYMOUR, AND SOLIDAY, STANLEY. The Effects of Hypothalamic Lesions on Conditioned Avoidance Learning 497
LEWIS, MELISSA. Behavior Resulting from Sodium Chloride Deprivation in Adrenalectomized Rats 464
LIBERSON, WLADIMIR T. See FELDMAN, ROBERT S.
LINTON, MARIGOLD. See EISMAN, EUGENE.
LIPSITT, LEWIS P. See ERICKSON, MARILYN T.
LONGO, NICHOLAS, AND BITTERMAN, M. E. The Effect of Partial Reinforcement with Spaced Practice on Resistance to Extinction in the Fish 169

Low, Lorraine. See Hall, John F.
Lutz, Robert E., and Perkins, Charles C., Jr. A Time Variable in the Acquisition of Observing Responses ... 180
McClearn, Gerald E. Strain Differences in Activity of Mice: Influence of Illumination ... 142
McCleary, Robert A. Type of Response as a Factor in Interocular Transfer in the Fish ... 311
MacDonnell, Malcolm. The Effect of Anesthetics on Recovery from Auditory Fatigue in the Cat ... 564
McDowell, A. A., Brown, W. Lynn, and McTee, A. C. Sex as a Factor in Spatial Delayed-Response Performance by Rhesus Monkeys ... 429
McGill, Thomas E. Response of the Leopard Frog to Electric Shock in an Escape Learning Situation ... 443
Mason, William A. The Effects of Social Restriction on the Behavior of Rhesus Monkeys: I. Free Social Behavior ... 582
McIntire, Roger W. See Maher, Brendan A.
McTee, A. C. See McDowell, A. A.
Maher, Brendan A., and McIntire, Roger W. The Extinction of the CER following Frontal Ablation ... 549
Mangum, Wiley P., Jr. See Young, Robert K.
Mason, William A. See Harlow, Harry F.
Massopust, Leo C., Jr. See Thompson, Robert.
Maulsby, Robert L., and Edelberg, Robert. The Interrelationship between the Galvanic Skin Response, Basal Resistance, and Temperature ... 475
Meade, Robert D., and Newman, Phillip J. Locomotion Gradients in the Activity Wheel ... 381
Meier, Gilbert W., and Moss, Margaret H. Maternal Behavior and Progeny Development of Pyridoxine-Deprived Albino Rats ... 480
Meyer, Donald R. The Effects of Differential Probabilities of Reinforcement on Discrimination Learning by Monkeys ... 173
Meyer, Donald R. See Meyer, Patricia M.
Meyer, Patricia M., King, Frederick A., and Meyer, Donald R. A Test of the Concept that Anticipation is a Factor in Frontal Serial Deficits in Rats ... 237
Michels, Kenneth M., Fischer, Barbara E., and Johnson, J. I., Jr. Raccoon Performance on Color Discrimination Problems ... 379
Miller, Neal E. See Bower, Gordon H.
Miller, Neal E. See Coons, Edgar E.
Miller, Neal E. See Trapold, Milton A.
Milstein, Sandra. See Datta, Lois-Ellin G.
Mishkin, M. See Battig, K.
Molt, Howard, Rosenblum, Leonard, and Stettner, L. Jay. Some Parameters of Imprinting Effectiveness ... 297
Moss, Margaret W. See Meier, Gilbert W.
Myers, Arlo K. Onset Vs. Termination of Stimulus Energy as the CS in Avoidance Conditioning and Pseudoconditioning ... 72
Myers, Arlo K. See Coons, Edgar E.
Nahinsky, Irwin D. The Transfer of a Drive Intensity Discrimination between Two Drives ... 598
Nealey, Stanley M., and Edwards, Barbara J. "Depth Perception" in Rats without Pattern-Vision Experience ... 468
Neet, Claude C. See Feldman, Robert S.
Newman, Phillip J. See Meade, Robert D.
Obrist, Walter D. See Kraft, Marcia S.
Olds, J., Travis, R. P., and Schwing, R. C. Topographic Organization of Hypothalamic Self-Stimulation Functions ... 23
Olds, James. See Seward, John P.
Pavlik, William B. See Reynolds, William F.
Pearl, Jack. See Kurtz, Kenneth.
Peretz, Ephraim. The Effects of Lesions of the Anterior Cingulate Cortex on the Behavior of the Rat ... 540

PERKINS, CHARLES C., JR. See LUTZ, ROBERT E.
PRIBRAM, KARL H. See KRAFT, MARCIA S.
PRIBRAM, KARL H. See SCHWARTZBAUM, J. S.
PRIBRAM, KARL H. See WILSON, MARTHA.
RASKIN, DAVID C. See SEWARD, JOHN P.
REID, LYNE STARLING. See FINGER, FRANK W.
REID, LYNE STARLING. See WEASNER, MARVIN HAROLD.
REYNOLDS, D. V. See WARREN, J. M.
REYNOLDS, WILLIAM F., AND PAVLIK, WILLIAM B. Running Speed as a Function of Deprivation Period and Reward Magnitude 615
RILEY, DONALD A., RING, KENNETH, AND THOMAS, JAMES. The Effect of Stimulus Comparison on Discrimination Learning and Transposition 415
RING, KENNETH. See RILEY, DONALD A.
RIOPELLE, A. J. Observational Learning of a Position Habit by Monkeys 426
RIOPELLE, A. J., AND SHELL, W. F. Temporal Contiguity of Stimulus and Response in Simultaneous-Discrimination Learning 500
ROBINSON, DONALD E. See CAPALDI, E. J.
ROBINSON, JOHN S. The Conceptual Basis of the Chimpanzees' Performance on the Sameness-Difference Discrimination Problem 368
ROSENBLUM, LEONARD. See MOLTZ, HOWARD.
ROSENZWEIG, MARK R. See KRECH, DAVID.
ROSVOLD, H. E. See BATTIG, K.
ROYCE, JOSEPH R., AND COVINGTON, MARTIN. Genetic Differences in the Avoidance Conditioning of Mice 197
RUDEL, RITA G. The Transposition of Intermediate Size by Brain-Damaged and Mongoloid Children 89
RUEPING, ROBERT R. See HARLOW, HARRY F.
SANTOS, JOHN F. The Influence of Amount and Kind of Training on the Acquisition and Extinction of Escape and Avoidance Responses 284
SCHUCK, JOHN R. Pattern Discrimination and Visual Sampling by the Monkey 251
SCHUMSKY, D. A. See HOVORKA, E. J.
SCHWARTZBAUM, J. S. Changes in Reinforcing Properties of Stimuli following Ablation of the Amygdaloid Complex in Monkeys 388
SCHWARTZBAUM, J. S., AND PRIBRAM, K. H. The Effects of Amygdalectomy in Monkeys on Transposition along a Brightness Continuum 396
SCHWING, R. C. See OLDS, J.
SEWARD, JOHN P., AND RASKIN, DAVID C. The Role of Fear in Aversive Behavior 328
SEWARD, JOHN P., UYEDA, ARTHUR A., AND OLDS, JAMES. Reinforcing Effect of Brain Stimulation on Runway Performance as a Function of Interval between Trials 224
SHELL, W. F. See RIOPELLE, A. J.
SMITH, JAMES C., AND BAKER, HOWARD D. Conditioning in the Horseshoe Crab 279
SMITH, NOEL. An Empirical Determination of an Approach Gradient 63
SOLIDAY, STANLEY. See LEVINE, SEYMOUR.
SPERRY, R. W. See GLICKSTEIN, MITCHELL.
STAMM, J. S. See WILSON, MARTHA.
STELLAR, ELIOT. The Marmoset as a Laboratory Animal: Maintenance, General Observations of Behavior, and Simple Learning 1
STELLAR, ELIOT. See KAHN, MARVIN.
STETTNER, L. JAY. See MOLTZ, HOWARD.
STEWART, JANE. Reinforcing Effects of Light as a Function of Intensity and Reinforcement Schedule 187
STONE, GEORGE C. Effects of Some Centrally Acting Drugs upon Learning of Escape and Avoidance Habits 33
SUTHERLAND, N. S. Visual Discrimination of Shape by *Octopus*: Open and Closed Forms 104
SUTHERLAND, N. S. The Visual Discrimination of Shape by *Octopus*: Squares and Rectangles 95
TATUM, RONALD. See ADER, ROBERT.

TEGHTSOONIAN, ROBERT, AND CAMPBELL, BYRON A. Random Activity of the Rat during Food Deprivation as a Function of Environmental Conditions 242
THEIOS, JOHN. See EISMAN, EUGENE.
THOMAS, DONALD B. See CANDLAND, DOUGLAS K.
THOMAS, JAMES. See RILEY, DONALD A.
THOMPSON, RICHARD F. See KENDALL, STEPHEN B.
THOMPSON, ROBERT. Retention of a Brightness Discrimination following Neocortical Damage in the Rat 212
THOMPSON, ROBERT, AND MASSOPUST, LEO C., JR. The Effect of Subcortical Lesions on Retention of a Brightness Discrimination in Rats 488
TRAFOLD, MILTON A., MILLER, NEAL E., AND COONS, EDGAR E. All-or-None Versus Progressive Approach in an Approach-Avoidance Conflict 293
TRAVIS, R. P. See OLDS, J.
UTTAL, WILLIAM R. Inhibitory Interaction of Responses to Electrical Stimuli in the Fingers 47
UTTAL, WILLIAM R. The Three-Stimulus Problem: A Further Comparison of Neural and Psychophysical Responses in the Somesthetic System 42
UYEDA, ARTHUR A. See SEWARD, JOHN P.
UYENO, EDWARD T. Hereditary and Environmental Aspects of Dominant Behavior in the Albino Rat 138
VINEY, WAYNE. See HULIČKA, IRENE MACKINTOSH.
WALK, RICHARD D. Response of Dark- and Light-Reared Rats to Stimulus Change 609
WARREN, J. M. Oddity Learning Set in a Cat 433
WARREN, J. M. Reversal Learning by Paradise Fish (*Macropodus opercularis*) 376
WARREN, J. M., AND AKERT, K. Impaired Problem Solving by Cats with Thalamic Lesions 207
WARREN, J. M., BROOKSHIRE, K. H., BALL, G. G., AND REYNOLDS, D. V. Reversal Learning by White Leghorn Chicks 371
WARREN, J. M. See BALL, G. G.
WEASNER, MARVIN HAROLD, FINGER, FRANK W., AND REID, LYNE STARLING. Activity Changes under Food Deprivation as a Function of Recording Device 470
WEASNER, MARVIN HAROLD. See FINGER, FRANK W.
WEISS, BERNARD, AND LATIES, VICTOR G. Magnitude of Reinforcement as a Variable in Thermoregulatory Behavior 603
WELLS, DORIS. See KENDLER, TRACY S.
WICKENS, DELOS D., AND COCHRAN, SAMUEL W. Conditioned Stimulus Flash Rate and Efficiency of Conditioning 341
WILCOTT, R. C. A Comparison of Palmar and Nonpalmar Skin Conductance 38
WILSON, MARTHA, STAMM, J. S., AND PRIBRAM, K. H. Deficits in Roughness Discrimination after Posterior Parietal Lesions in Monkeys 535
WILSON, J. W. DALTON, AND DYKMAN, ROSCOE A. Background Autonomic Activity in Medical Students 405
WORK, M. S. See HOVORKA, E. J.
VALENSTEIN, ELLIOT S. See HODOS, WILLIAM.
YOUNG, ROBERT K., MANGUM, WILEY P. JR., AND CAPALDI, E. J. Temporal Factors Associated with Nonresponse Extinction 435
ZARA, RONALD C. See JOHNSON, RONALD C.